

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

What is claimed is:

1. (Currently Amended) A method of forming a ZnO nanorod array, which comprises:

coating on a substrate ZnO nanoparticles serving both as a buffer layer and a seed layer; and

growing the ZnO nanoparticles into crystals to form the ZnO nanorod array in a nutrient solution containing hexamethylenetetramine and Zn nitrate, Zn acetate, or a derivative thereof,

wherein the substrate consists essentially of Si-wafer or is made of Al₂O₃, GaN, ScAlMgO₄, or LiNbO₃, and

wherein the operation of growing the ZnO nanoparticles in the nutrient solution is performed at 90 to 100 °C.

2. (Currently Amended) A method of forming a ZnO nanowall array, which comprises:

coating on a substrate ZnO nanoparticles serving both as a buffer layer and a seed layer; and

growing the ZnO nanoparticles into crystals to form the ZnO nanowall array in a nutrient solution containing Zn acetate or its derivative and sodium citrate,

wherein the substrate consists essentially of Si-wafer or is made of Al₂O₃, GaN, ScAlMgO₄, or LiNbO₃, and

wherein the operation of growing the ZnO nanoparticles in the nutrient solution is performed at 90 to 100°C.

3. (Cancelled)

4. (Currently Amended) The method of claim 1, wherein ~~the operation of growing the ZnO nanoparticles in the nutrient solution is performed at 30 to 400 °C,~~ and the volume ratio of Zn nitrate, Zn acetate, or a derivative thereof, to hexamethylenetetramine in the nutrient solution is 10:1 to 1:10.

5. (Currently Amended) The method of claim 2, wherein ~~the operating of growing the ZnO nanoparticles in the nutrient solution is performed at 30 to 400°C,~~ and the volume ratio of Zn acetate or its derivative to sodium citrate in the nutrient solution is 10:1 to 1:10.
6. (Original) A ZnO nanorod array formed by the method of claim 1.
7. (Original) A ZnO nanowall array formed by the method of claim 2.
8. (New) The method of claim 1, wherein the nutrient solution contains nutrients consisting essentially of hexamethylenetetramine and at least one nutrient selected from the group consisting of Zn nitrate, Zn acetate and a derivate thereof.
9. (New) The method of claim 1, wherein the operation of growing the ZnO nanoparticles is performed in the absence of a citrate ion.
10. (New) The method of claim 1, wherein the nutrient solution contains hexamethylenetetramine and Zn nitrate.
11. (New) The method of claim 2, wherein the nutrient solution contains nutrients consisting essentially of sodium citrate and at least one nutrient selected from the group consisting of Zn acetate and a derivate thereof.
12. (New) The method of claim 2, wherein the operation of growing the ZnO nanoparticles is performed in the absence of hexamethylenetetramine.
13. (New) The method of claim 2, wherein the nutrient solution contains Zn acetate and sodium citrate.